Journal of Cleaner Production 65 (2014) 3–6

Contents lists available at ScienceDirect

Journal of Cleaner Production

journal homepage: www.elsevier.com/locate/jclepro

Call for papers

Toward a regenerative sustainability paradigm for the built environment: from vision to reality☆

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ARTICLE INFO

Article history:
Received 20 August 2013
Accepted 20 August 2013
Available online 3 October 2013

ABSTRACT

This Call for Papers (CfPs) for a Special Volume of Journal of Cleaner Production (SV) focuses upon multiple dimensions of regenerative sustainability (e.g. regenerative design, regenerative development, and positive development) applied to the urban built environment at scales, which range from individual buildings, neighborhoods, urban development to integrated regional sustainable development. It was designed to address the objectives of (1) documenting the theoretical development of the term regenerative sustainability, its emerging principles and practices, (2) explaining how it can be measured and monitored, (3) providing encouraging practical pathways and examples of its implementation in multiple cultural and climatic contexts, and (4) mapping obstacles and enablers that must be understood and addressed so that more rapid progress can be made in implementing the shift towards an urban built environment that supports a genuinely sustainable society.

The regenerative sustainability paradigm, as described by du Plessis (2012), is emerging out of the transition from a 'mechanistic' to an 'ecological' or living systems worldview. This view helps us to re-conceptualize relationships among human's technological, ecological, economic, social and political systems. Through exploration and questioning of developments in the context of 'net positive' or 'regenerative' and more traditional sustainability literature, and through application of the classical Chinese concept *Tian Ren He Yi* as it was applied to ancient Chinese buildings, a new paradigm of sustainability is evolving. It relates to approaches that support mutually beneficial co-evolution of humans and natural systems in a partnered relationship (Cole, 2012a, b).

This 'Call for Papers' (CfPs) for a ***Special Volume of Journal of Cleaner Production (SV)*** focuses upon multiple dimensions of regenerative sustainability (e.g. regenerative design, regenerative development, and positive development) applied to the urban built environment at scales, which range from individual buildings, neighborhoods, urban development to integrated regional sustainable development. The questions that this SV addresses include 1) how these approaches and developments are evolving, 2) how they can help us to prevent or adapt to climate changes, and 3) how these approaches are likely to evolve in the next two to three decades.

Traditionally, *'green building'* concepts were primarily directed at 'doing less harm' or, 'reducing the degenerative consequences' of human activities on human health and upon the integrity of ecological systems' (Zhang et al., 2011). These approaches were criticized by Cole (2012a, b) in that the notion of '*green building*' is not only an insufficient requirement for charting an ecologically sustainable future but is also an insufficient aspiration for challenging and empowering design professionals and their clients to be increasingly creative. The heart of regenerative development is the concept of place and humanity's role in it. It promotes a co-evolutionary, partnered relationships among humans and natural systems rather than a managerial one and, in so doing, builds, rather than diminishes, the social and natural capitals to '*grow the caring*' required to make sustainability real (Cole, 2012a, b).

During the past few decades, the trajectory of 'regenerative development' and 'positive development' (Birkeland, 2008; Mang, 2009; Reed, 2007) has attracted increased interest as a means to reframe and re-conceive '*green building*' practices. Evidence from several research and development themes motivate us *to* **shift from addressing issues such as climate change, green buildings, regional carrying capacity, infrastructure design and development, urban community planning, and social justice, in isolation to working with them simultaneously and holistically from a system's perspective.**

Therefore, instead of seeking to solve individual problems with the objective of causing 'less harm' or even 'net zero' solutions that 'minimize' or 'mitigate' harmful human activities, we need to seek to engage and to empower people throughout the world to focus upon

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http://dx.doi.org/10.1016/j.jclepro.2013.08.025

integrated, system's approaches for creating and re-creating buildings, neighborhoods, urban areas and regions through a 'net positive' or 'regenerative' lens. This SV team anticipates that this approach will increasingly yield synergistic benefits that will help all to achieve dramatic improvements that are far beyond the current norm.

Developing these concepts into implementable solutions will require us to bring regenerative sustainability to fruition in decision-making. In current practice, urban development practice, terms such as eco-cities, low carbon cities, knowledge cities, smart/intelligent cities and regenerative neighborhood/community/cities have been proposed as integrated socio-technical answers to environmental concerns in the urban built environment. **What do these entail, how are they being implemented and how do they relate to regenerative sustainability?**

This CfPs for a Special Volume of the Journal of Cleaner Production was designed to address the objectives of (1) documenting the theoretical development of the term regenerative sustainability, its emerging principles and practices, (2) explaining how it can be measured and monitored, (3) providing encouraging practical pathways and examples of its implementation in multiple cultural and climatic contexts, and (4) mapping obstacles and enablers that must be understood and addressed so that more rapid progress can be made in implementing the shift towards an urban built environment that supports a genuinely sustainable society.

Therefore, we invite authors to develop papers based upon comprehensive/integrative reviews and theory development, as well as papers that provide detailed case studies, which document best practices, illustrate effective indicators and document their effectivity in monitoring and assessing progress in multi-dimensional ways in the essential societal transitions. Papers are solicited that document the evolution and supportiveness of governmental policies. We also invite, in-depth editorial critiques, and relevant book reviews, which include **but are not restricted** to the following themes:

1. Theme 1: theory and definitions of regenerative sustainability and related concepts

- Theoretical and conceptual frameworks, foundations and origins of the 'regenerative sustainability' paradigm (included related concepts of 'regenerative design', 'regenerative development' and 'positive development');
- Definitions and roles of baselines and benchmarks in assessing 'net positive' ecological, socio-cultural and economic performance;
- Documenting and publicizing the literature on 'definitions', 'characteristics', 'purposes', 'criteria', 'scopes,' 'governmental policies' and emphases of "regenerative sustainability;"
- Contrasting green building with regenerative sustainability framing and language;
- Identification and quantification of the co-benefits from implementation of the concepts and practices of regenerative sustainability;
- Trans-disciplinary approaches that involve social scientists (e.g. geographers, political ecology, etc.), ecologists, economists, design professions (e.g. architects, landscape architects, & engineers) and public policy & public health experts, who are and will increasingly, help to catalyze implementation of the emerging knowledge of regenerative sustainability.

2. Theme 2: performance assessment of regenerative sustainability

- Identification and application of indicators/dimensions/principles/metrics for measuring qualitative and quantitative performance of regenerative/net positive development;
- Regenerative sustainability assessment approaches based upon multiple capital models, which have foundations in practical and academically-sound performance metrics;
- Economic, social, cultural and biophysical dimensions, thresholds and targets for regenerative sustainability at various scales;
- Definitions and identifications of achieved and achievable quantitative and qualitative results of regenerative and 'net positive' sustainability at the levels of individual buildings, planned neighborhood, urban, regional sustainable development scales. There is also need for enhancing our skills in working at the integration of work on the interconnected systems of which each are integral parts;
- Contextual considerations and guiding principles for the use of baselines and benchmarks for assessing 'net positive' performance, especially with respect to issues of multiple spatial, temporal and functional scales;

3. Theme 3: pathways towards urban models that support regenerative sustainability

- Pathways, partnership frameworks, governance and policy regimes, models, support tools and approaches that support the emergence of urban regenerative practices;
- Pathways towards regenerative sustainability at different scales (e.g., building, neighborhood, urban and regional scales) (Littman, 2009);
- Engagement practices, actions and movements with stakeholders in exploring ecological, economic and social possibilities for regenerative sustainability and net positive developments, at various urban scales;
- Identification of roles for different stakeholders regenerative sustainability at multiple scales, including but not limited to real estate developers, investors, architects, urban planners, citizens and civil society organizations, NGOs;
- Case studies, which document development and adoption of regenerative practices at the neighborhood, urban or regional scale;

4. Theme 4: socio-cultural dimensions of regenerative sustainability

- Approaches/tools/principles to merge human (social-cultural) and non-human living systems (building environment) to achieve capability, vitality, viability and harmony in developing sustainable societies in the context of climate change and other global challenges;
- The main themes, dimensions and patterns of socially regenerative development in the urban context, including solutions to urban poverty;
- Incorporation of social-cultural dimensions within regenerative development models;
- Critical success factors for planning, developing and governing socially regenerative neighborhoods by the public, private and NGOs;
- The characteristics of 'capability' and re-characterization of 'social capital' in the context of regenerative sustainability.

5. Theme 5: obstacles, benefits and enablers for the implementation of regenerative sustainability

- Institutional barriers to achieving net positive outcomes
- Financial/economic/management/governance solutions to work in harmony with ecological and human systems within regenerative development by the public &, private sectors and with NGOs;

- Barriers, benefits, enablers and opportunities to implementation of technologies (e.g. urban and neighborhood metabolism approaches) that may support regenerative sustainability at the building, neighborhood, urban and regional scales.
- Identification, correlation and causation of 'co-benefits' as a result of the new approaches associated with regenerative sustainability, including but not limited to, human health, ecosystem and economic benefits;
- Benefits and challenges in exploring the nexus of environmental science, technology, and society to achieve net positive goals;
- Enablers related to integrated neighborhood infrastructure and building design;
- Case studies of regenerative communities and the supportive role of buildings and neighborhoods.

6. Coverage/audience

This Special Volume of Journal of Cleaner Production is intended to provide academics, policy-makers, developers, architects, planners, environmental NGOs and other practitioners a fundamental, holistic, multi-disciplinary understanding of regenerative/net positive development. Particular focus of research themes will be placed on the five areas described above. The paper features could be reports of original research, comprehensive reviews, theoretical frameworks, empirical case studies, or notes on original research or new techniques from the field. Book reviews and editorials are also welcome.

7. Tentative schedule

Contributors with proposals for papers are encouraged to communicate with the editors and co-editors by e-mail. The following tentative schedule will be used:

- Call for papers published: August 2013
- Submission of extended abstracts of 400–500 words, by November 15, 2013 to Dr. Xiaoling Zhang (e-mail: xiaoling.zhang@cityu.edu.hk).
- Abstract submitters will receive responses from the Special Volume Editorial Team by December 15, 2013;
- Authors submit 'peer-review ready' documents to Elsevier via the EES System by May 15, 2014.

All authors should access and develop their papers based upon the editorial guidelines provided in the instructions for authors for the "Journal of Cleaner Production," which can be accessed from the website: http://www.elsevier.com/wps/find/journaldescription.cws_home/30440/authorinstructions.

Full papers are invited for potential publication in this Special Volume.

Full research and theoretical papers with broad empirical studies should be 7000 and 8500 words;

Comprehensive/integrative review articles should be between 9000 and 13,000;

Notes from the field, letters to the editor or book reviews, should be 2000–3500 words.

Upon receipt of the completed documents, a minimum of three independent reviewers will be selected to provide peer reviews for each manuscript. Upon receipt and acceptance of the author's revised manuscripts, all will be published in this Special Volume of the JCLP.

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